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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,304	02/24/2004	Kevin Grol	3050-02	2303

37101 7590 09/20/2005

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EXAMINER

BLOUNT, ERIC

ART UNIT PAPER NUMBER

2636

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/708,304	Applicant(s) GROLD ET AL.	
	Examiner Eric M. Blount.	Art Unit 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-26 and 29-46 is/are rejected.
- 7) ☒ Claim(s) 1-46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02242004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it does not commence on one page. Further the abstract includes legal phraseology. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The disclosure is objected to because of the following informalities: Applicants' use quotations throughout the specification at places where an apostrophe should be used. See paragraph 1, line 8, the Webster"s should be written as Webster's. Applicants' are advised to check the entire specification for punctuation and grammatical errors.

Appropriate correction is required.

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3. Claims 1-46 are objected to because of the following informalities: The claims should be number consecutively beginning with claim 1 and ending at claim 46. Applicants' should renumber claims [c1]-[c46] as claims 1-46. Appropriate correction is required.

4. Claims 1-46 are objected to because of the following informalities: The claims contain several punctuation errors. For example, in claim 1:

Line 2, there should be a space between "comprising;" and "a".

Line 2, there should be a space between "supply;" and "a".

Line 2, there should be a space between "sensor;" and "a".

Line 3, there should be a space between "controller;" and "an".

Line 3, there should be a space between "generator;" and "wherein".

Line 4, the word "user"s" should be spelled "user's".

Line 12, there should be a space between "sensor;" and "wherein".

The errors shown above are examples of errors made throughout the claims.

Applicants' are advised to check all claims, including claim 1, for all punctuation and/or grammatical errors that may be present. Appropriate correction is required.

Drawings

5. The drawings are objected to because they are not clear. Text labels and circuit components in Figures 1-3 are blurry and unreadable. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 6-13, 15-17, 19-22, 24-26, 29-36, 38-40, and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avni et al [U.S. Patent No. 6,273,863].

As for **claims 1, 12, 24, and 35**, Avni et al disclose a body force alarming apparatus comprising a housing (insole, column 5, lines 59-61), a power supply (301), a piezo sensor (201), a controller (205), and an output generator (302, 209, and column 6, lines 8-10). The piezo sensor is accommodated within a user's shoe and connected to the controller, wherein the piezo sensor, controller, and output generator are connected to the power supply (column 5, lines 46-65). The controller is indirectly connected to the output generator and a control signal is sent to the output generator when a threshold level of force signal received from the piezo sensor and the sensor signals the controller when force from an impact is applied to the piezo sensor. The controller signals the output generator when one or more threshold levels of force have been reached and the output generator generates a perceivable signal in response to a signal from the controller (column 5, lines 66 – column 6, lines 12 and column 6, lines 48-57). Avni et al do not specifically disclose that the controller, output generator, and power supply are all accommodated within the housing and that the controller is directly connected to the output generator. However, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that the components could have all been incorporated into the same housing especially when vibrational or tactile output is generated (column 4, lines 53-58). In that instance, an output would be generated at the monitored foot of a user, which would aid in training a user on how to walk or run appropriately. Further, one of ordinary skill in the art would recognize that a D to A and an A to D converter could be included in the CPU of Anvil et al. This can be viewed as a matter of design.

Regarding **claims 2 and 25**, Avni discloses that two or more piezo sensors provide feedback when one or more levels of force are sensed (column 5, lines 15-24).

Regarding **claims 3 and 26**, Avni discloses a means for automatically adjusting the controller (column 8, line 58 – column 9, line 5). The self-learning feature disclosed by Avni suggests that the controller is automatically adjusted.

As for **claims 6-10, 20-22, 29-33, and 43-45**, Avni discloses that the output generator may be any loudspeaker for generation of an alarm (column 6, lines 7-10). Avni also discloses that the output generator may be located remote from the piezo sensors and that the output generator may be in communication with the sensors via wireless communications (column 9, lines 35-43). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that if the output generator were remote from other components of the system and communicated with wireless communication means, it would have a separate power source. Further, it is obvious that through the use of wireless communications, all components including the controller and the output generator could be separated from or attached to the user. It is obvious that all necessary components would include a wireless receiver.

Regarding **claims 11 and 34**, the piezo sensors taught by Avni reasonably appear to meet the limitation of impact transducers (column 5, lines 15-45).

As for **claims 13 and 36**, the perceivable output may be a vibration, audible signal, or a visual signal (column 4, lines 52-58).

As for **claims 15 and 38**, Avni disclose that an output generator generates tow or more corresponding perceivable distinct signals in response to each corresponding signal from the controller (column 6, lines 49-57).

Regarding **claims 16 and 39**, low battery sensors and alarms were well known in the art at the time of the invention by the applicant. The inclusion of these sensors would have been an obvious modification which would allow a user to replace batteries before they stopped providing power to the system.

As for **claims 17 and 40**, Avni discloses an on/off switch (column 7, line 30).

Regarding **claims 19 and 42**, it was well known in the art at the time of the invention by the applicant for exercise and medical devices to have settings such as beginner, intermediate, and advanced to adjust a threshold. It would have been obvious to one of ordinary skill to add this feature to the device taught by Avni because it is conventional wisdom.

8. Claims 14, 23, 37, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avni et al as applied to the claims above, and further in view of Gray et al [U.S. Patent No. 5,357,696].

Regarding **claims 14 and 37**, Avni does not disclose that a controller is preset to generate two or more signals when two or more corresponding signals are received that are at or above two or more corresponding thresholds. In an analogous art, Gray shows that a pre-alarm threshold and an alarm threshold may be provided for sending signals to an output generator (column 7, lines 35-53). This teaching reasonably appears to meet the limitation of two signals being output to an output generator when

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two or more corresponding signals are received from the sensor, which are at or above the two, or more corresponding threshold levels of force. It would have been obvious to one of ordinary skill in the art to modify the teachings of Avni to include the teachings of Gray because it would allow a user to self-correct pressure exerted on the foot before an alarm event.

As for **claim 23 and 46**, Avni does not specifically disclose that output data output data is recorded. In an analogous art, Gray discloses that data pertaining to the forces applied to a limb may be recorded (column 5, lines 42-59). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to modify the invention of Avni to include a recording means as taught by Gray so that historical data could be monitored by a user and/or a physician to keep track of the health of a limb.

9. Claims 18 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avni et al as applied to the claims above, and further in view of Gray et al [U.S. Patent No. 6,122,846].

Regarding **claim 18 and 41**, Avni does not specifically disclose a digital display for displaying one or more amounts of force applied to the sensor. In an analogous art, Gray discloses that a visible output may be provided to notify the user of forces exerted on a foot. Gray also shows that a display means may show numerical characters (column 8, lines 52-67). It would have been obvious to one of ordinary skill in the art to modify the Avni reference to include the display means taught by Gray because the

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modification would result in a notification that would allow the user to ascertain the exact weight exerted on a limb and to adjust weight until a desired value is reached.

Allowable Subject Matter

10. Claims 4, 5, 27, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Blount whose telephone number is (571) 272-2973. The examiner can normally be reached on 8:00 am - 4:00 pm.

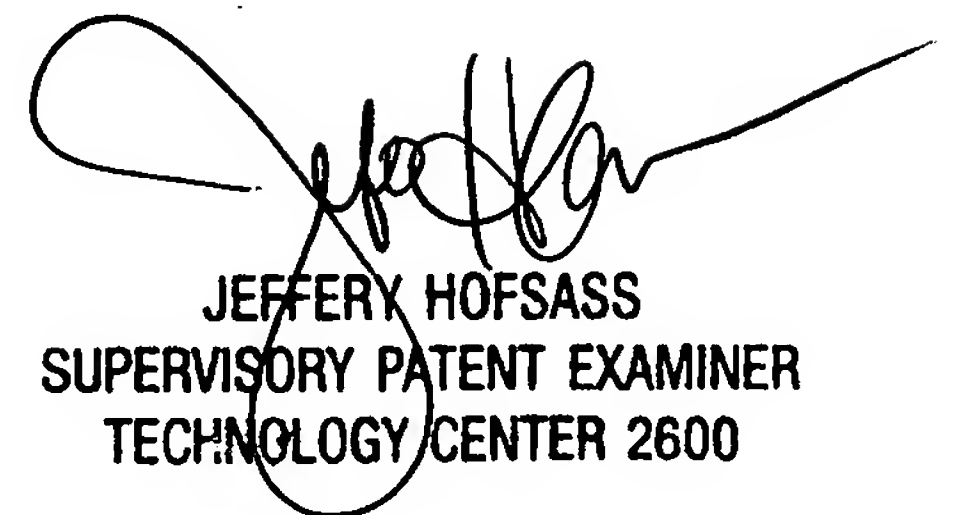
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Eric M. Blount
Examiner
Art Unit 2636



JEFFERY HOFSSASS
SUPERVISORY PATENT EXAMINER
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